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TECHNICAL REVIEW AND EVALUATION OF APPLICATION FOR AIR QUALITY PERMIT NO 34757

I. INTRODUCTION

This permit is for the operation of a roof coatings manufacturing facility by Henry Company in Kingman, Arizona. This is for the renewal of Air Quality Permit # 1000812.

Company Information

Mailing Address: 2911 Slauson Ave., Huntington Park, CA 90255
Facility Address: 4685 Finance Way, Kingman, AZ 86401

II. PROCESS DESCRIPTION

Henry Company is a Class II synthetic minor source that manufactures protective roof coatings, emulsions, and paints. The products are made by blending asphalt, solvents (mineral spirits), asbestos, clay, pigments, soap, wax, lime, and other additives. The products manufactured are either solvent-based (asphalt roof cements) or emulsions-based (driveway sealers, latex paint and wax moisture-proofing coatings). Solvent-based products are manufactured by adding all the raw materials into mixing tanks. Emulsion based products are manufactured by processing the raw materials in mills. The process is completed in a four-hour batch. Pollution control equipment consists of two baghouses in series, followed by a HEPA filter.

III. PERMIT TYPE

The permit will limit VOC emissions at the facility to less than or equal to 50 tons per year based on a 12 month rolling total. Therefore, the source is being issued a Class II Synthetic Minor permit.

IV. EMISSIONS

Table 1: PTE

Unit	Pollutant	*PTE (tpy)
Facility Wide	PM	0.346
	PM ₁₀	0.346
	Sox	7.46
	CO	1.235
	VOC	50**
	NO _x	2.10
	Xylene	3.19
	Ethylbenzene	0.04
	Cumene	0.30

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	Ethylene Glycol	0.02
	Asbestos	5.9E-08
	Total HAPs	3.55

* Please refer to Class II application for detailed emission calculations.

** The source was given an emission cap of 50 tons per year of VOC.

V. COMPLIANCE HISTORY

Table 2 summarizes the inspections that have been conducted at the source .

Table 2:

Inspection Date	Type of Inspection	Results/Findings
7/13/05	Routine Unannounced	<p>Notice of Violation Issued for the following:</p> <ol style="list-style-type: none"> 1. Failure to submit semiannual compliance certifications since March 4, 1999 2. Failure to provide daily measurement of pressure loss through dust collector baghouse 3. Failure to provide records of visual observations required by the permit. 4. Failure to provide records of results of visible emission monitoring and air cleaning device inspections. <p>In addition, the facility sent an email to the Department that the site had discontinued the use of asbestos in their process effective September 2004 and that the site had been decontaminated of any asbestos, including finished goods that contained asbestos, and removal of asbestos waste bin upon completion of decontamination. This inspection found that the bags in the 2 baghouses and the HEPA filter in the air handler had not been removed as part of an asbestos decontamination effort. The facility was asked to provide documentation that decontamination of all associated equipment has occurred and asbestos use stopped in their product. Henry Company by letter of September 27, 2005 withdrew its request to delete asbestos raw material from the permit. Although friable asbestos use is currently suspended, it may be used as a raw material in the future.</p>
6/22/04	Announced	In Compliance.
6/12/03	Announced	In Compliance. Operation and maintenance records available in the log book.
1/31/02	Unannounced	In Compliance. Operation and maintenance records not available in the log book.
4/19/01	Unannounced	NOC (Notice of Opportunity to Correct) issued. Inspection found that there was no record of permit having been transferred from Monsey Products to the Henry Company. Permit Amendment to change name issued on 3/19/02 so issue is resolved.
1/29/97	Routine	<p>One of the latches on the HEPA filter housing was broken.</p> <p>Pressure drop across the primary collector was 3" of water column and 0.9" across the HEPA filter.</p> <p>Records review showed that all the maintenance checks are done on a weekly basis and logged as required.</p> <p>The daily operational checks and delta P's were logged.</p> <p>Plant compliant with all permit regulations. No NOV or NOC issued.</p>

VI. APPLICABLE REGULATIONS

Table 3 identifies the applicable regulations corresponding to every process unit and also provides verification as to why that standard applies.

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Table 3: Verification of applicable regulations

Unit	Date of manufacture	Control Equipment	Applicable Regulations	Verification
Boiler & Hot Oil Heater	Hot oil heater- 1992 Boiler- 1995	None	<u>A.A.C.</u> R18-2-724.E. R18-2-724.J R18-2-724.C.1 R18-2-724.K.1.c R18-2-724.G	The hot oil heater has a capacity of 2.1 MMBtu/hr and the boiler has a capacity of 1.26 MMBtu/hr. R18-2-724 covers all industrial and commercial fuel burning equipment with a capacity greater than 500,000 Btu/hr.
Process units (Paints, emulsions, and roof coatings manufacture units)		Two baghouses in series followed by a HEPA filter	<u>A.A.C.</u> R18-2-702.B R18-2-730.A.1 R18-2-730.B. R18-2-730.D R18-2-730.F R18-2-730.G	R18-2-730 is applicable to all unclassified sources.
Non-Point Sources (Open Areas, Roadways & Streets, Storage Piles and Material Handling)		Water and other reasonable precautions	<u>A.A.C.</u> R18-2-602 R18-2-604.A R18-2-604.B R18-2-605 R18-2-606 R18-2-608 R18-2-612	The regulations listed are applicable to non point sources.
Spray Painting		Wet blasting, enclosure or equivalent approved by director	<u>A.A.C.</u> R18-2-702.B R18-2-726	Relevant requirements applicable to abrasive blasting
Abrasive Blasting		Control measures that attain 96% efficiency	<u>A.A.C.</u> R18-2-702.B R18-2-727 <u>SIP</u> R9-3-527.C	Relevant requirements applicable to spray-painting.
Mobile Sources		Control measure	<u>A.A.C.</u> R18-2-801 R18-2-802.A R18-2-804	These regulations are applicable to all mobile sources.
Demolition/Renovation		None	<u>A.A.C.</u> R18-2-1101.A.8 (NESHAPS for asbestos)	Relevant requirements applicable to demolition and renovation operations

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VII. PREVIOUS PERMITS

Table 4 outlines the permits that have been issued to the source. Table 5 and Table 6 crossreference the previous permit conditions to their location in the new permit. If a condition from the previous permit is deleted or if a new standard becomes applicable, comments are provided explaining the reasoning for the same. Only the permits after and including the Air Quality Class II Permit No. 1000812 were included.

Table 4:

Date of permit issuance	Permit Number	Application Basis
10/16/95	1000139	Minor revision
3/23/92	65031	Installation permit
3/4/99	1000812	Air Quality Class II Permit
3/19/02	LTF # 26362	Administrative Permit Amendment

Table 5:

Class II Permit No. 1000812

Permit condition #	Determination				Comments	Condition # in current permit
	Delete	Kept	Revise	Streamline		
Att A.			X		General provisions - revised to represent most recent language	Att A
Att B.I.A.		X			Fuel Limitation.	Att.B.II.B.1.a.
Att B.I.B.1		X			Opacity limitation for Boiler and Heater	Att B.II.C.1.a.
Att.B.I.B.2.		X			Reporting requirement for Boiler and Heater	Att.B.II.C.2.
Att.B.I.C.		X			PM limit Boiler and Heater	Att B.II.C.1.b.
Att.B.I.D.1.a.		X			SO ₂ limit for Boiler and Heater	Att B.II.D.1.
Att.B.I.D.1.b.		X			Permittee shall burn only low sulfur fuel oil	Att.B.II.B.1.b.
Att.B.I.D.2.		X			Recordkeeping Requirements for Boiler and Heater. Citation change 306.A.3.b to 306.A.3.c	Att.B.II.D.2.
Att.B.II.A.			X		Opacity limit revised to reflect current requirement. Opacity shall not exceed 40% until April 23, 2006, after which, opacity shall not exceed 20%. Citation for non-point sources removed. Moved citation R18-2-610 to Section IV and changed to current citation R18-2-612.	Att.B.III.B.1.a.(1) Att.B.IV.B.1.a.(1)
Att.B.II.B.1.			X		PM limit. $E = 4.1 P^{0.67}$; $P \leq 30$ tons/hr. Requirement made more specific and revised to reflect exact language in the	Att.B.III.B.1.b.

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					rule. Added requirement from R18-2-730.B and added citation. Removed Definition of “Process weight rate” because not in R18-2-730. Removed “Process weight rate shall be determined...” because not in the rule.	
Att.B.II.B.2.a			X		Added option to discharge no visible emissions in accordance with 40 CFR 61.144(b)(1). Requirement to install dust collection system (2 baghouses in series followed by a HEPA filter) unchanged except citation for R18-2-331 made more specific.	Att.B.III.B.2.a.(1)
Att.B.II.B.2.b		X			Fabric filter specification.	Att.B.III.B.2.a.(2)
Att.B.II.B.2.c		X			Air flow permeability	Att.B.III.B.2.a.(3)
Att.B.II.B.2.d		X			Minimum weight and thickness of felted fabrics.	Att.B.III.B.2.a.(4)
Att.B.II.B.3.a			X		Requirement for daily measurement of the pressure loss of gas stream through the dust collector baghouse. This is a material permit condition.	Att.B.III.B.3.a.(1)
Att.B.II.B.3.b		X			Keep records for monitoring pursuant to Att.B.III.B.3.a.(1).	Att.B.III.B.3.a.(2)
Att.B.II.B.3.c		X			Requirements for daily monitoring of visible emissions from each source of asbestos.	Att.B.III.B.3.a.(3)
Att.B.II.B.3.d		X			Weekly inspections of air cleaning device.	Att.B.III.B.3.a.(4)
Att.B.II.B.3.e		X			Requirements for maintenance of records of visible emission monitoring results and inspections.	Att.B.III.B.3.a.(5)
Att.B.II.B.3.f		X			Keep monitoring and inspection records for at least 5 years.	Att.B.III.B.3.a.(6)
Att.B.II.B.3.g		X			Keep copy of all monitoring records for at least 5 years.	Att.B.III.B.3.a.(7)
Att.B.II.B.3.h		X			Submit quarterly reports if visible emissions occurred during the reporting period	Att.B.III.B.3.a.(8)
Att.B.II.B.4.	X				Removed because test not required during this permit term.	Att B.III.B.4.
Att.B.II.C.1.		X			Limit gaseous or odorous materials from equipment, operations or premises	Att B.III.C.1.a.
Att.B.II.C.2.		X			Materials processed, stored, used, and transported so that they will not contribute to or cause air pollution.	Att B.III.C.1.b.
Att.B.II.C.3.		X			Stack requirement.	Att B.III.C.1.c.
Att.C.	X				Attachment “C”: Applicable Requirements removed. Applicable requirements have been identified and Permit Shield added.	N/A
Att.D.			X		Equipment List revised to add new mixer and two asphalt emulsion tanks.	Att.C.

Class II Administrative Amendment No. 26362

Permit condition #	Determination				Comments	Condition # in current permit
	Delete	Kept	Revise	Streamline		
All			X		Name Change from Monsey Products to Henry Company	N/A

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VIII. PERIODIC MONITORING

Facility Wide VOC limit:

Volatile Organic Compounds emitted from the facility are limited to a total of 50 tons per year, based on a 12-month rolling total. Because VOC emissions from combustion, storage tanks, and paints unit are minimal (PTE 1.13 tpy), they are not required to be tracked. An equation is used to compute monthly VOC emissions from the cutback coatings mixers. This equation is the total of VOC emissions from use of mineral spirits in the cutback coatings mixers and use of other VOC containing materials in the cutback coatings mixers. VOC emissions from the use of mineral spirits are determined through use of a VOC emission factor of 0.0043 lbs per lbs mineral spirits used. VOC emissions from use of all other VOC containing materials are assumed equal to amount of VOC used. The total monthly emissions shall be added to the total monthly emissions for the previous consecutive 11 calendar months to establish rolling 12-month total emissions for the facility.

Hurst Boiler and Gencor Heater SO₂ limit:

The Permittee shall keep records of fuel supplier certification including the following information: name of the the oil supplier, the sulfur content and the heating value of the oil from which the shipment came, and the method used to determine the sulfur content of the oil.

Roof Coatings, Emulsions, and Paints Units

PM limit:

The Permittee is required to measure daily and maintain records of the pressure loss of the gas stream through the dust collector baghouse. The Permittee is required to retain a copy of all monitoring records for at least 5 years.

Opacity limit:

A certified EPA Reference Method 9 observer is required to conduct weekly surveys of visible emissions from the dust collection system and process equipment. If the opacity appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 (Method 9) observation.

The Permittee shall keep records of initial survey and any Method 9 observations performed. Records shall include emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If observation shows a Method 9 opacity reading in excess of the standard, the Permittee shall report this to ADEQ as excess emission and initiate appropriate corrective action to reduce opacity below the standard. The Permittee shall keep a record of the corrective action performed.

Fugitive Emission Sources:

Open Areas, Roadways & Streets, Storage Piles and Material Handling control measures required:

Maintain records of the dates and type of control measures adopted pursuant to IV.B.1.a.(2) of Attachment "B" of the permit and A.A.C.R18-2-604.A.

Opacity Requirement:

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Monthly survey of visible emissions from the fugitive dust sources by a certified Method 9 observer.

The Permittee shall keep a record of the name of the observer, the date and location on which the observation was made, and the results of the observation. If the observer sees a plume from a fugitive dust source that on an instantaneous basis appears to exceed 40%, then the observer shall, if practicable, take a six-minute Method 9 observation of the plume. If the six-minute opacity of the plume is less than or equal to 40%, the observer shall make a record of the following: a) Location, date, and time of the observation; and b) The results of the Method 9 observation. If the six-minute

opacity of the plume exceeds 40%, then the Permittee shall do the following: a) Adjust or repair the controls or equipment to reduce opacity to below 40%; and b) Report it as an excess emission under Section XII.A of Attachment "A".